### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

# 1-28. (Canceled)

- 29. (Currently Amended) A method of producing a material for use as a filter to purify sewage, the method comprising:
- a) providing pre-sorted plastic material wastes comprising substantially polyethylene or polypropylene;
- b)—adding between about 0.01% and 5% by weight of a solid peroxide, with respect to the total weight of the plastic material, to the pre-sorted plastic material wastes;

crosslinking the pre-sorted plastic material wastes in the presence of the peroxide to provide a substantially homogeneous plastic material; and

e) forming the <u>substantially homogeneous</u> plastic material <u>wastes</u> into <u>a</u> granular material.

#### 30-44. (Canceled)

- 45. (Currently Amended) A method of producing a material for use as a filter to purify sewage, the method comprising:
- a) providing pre-sorted plastic material wastes comprising substantially polyethylene or polypropylene;
- b)—adding between about 0.1% and 0.5% by weight of a solid peroxide, with respect to the total weight of the plastic material, to the pre-sorted plastic material wastes;

crosslinking the pre-sorted plastic material wastes in the presence of the peroxide to provide a substantially homogeneous plastic material-; and

e) ——forming the <u>substantially homogeneous</u> plastic material <del>wastes</del> into <u>a</u> granular material.

## 46. (Canceled)

47. (Previously Presented) The method as set forth in claim 29 wherein the peroxide added to the plastic material wastes is in ground form.

### 48-59. (Canceled)

- 60. (Previously Presented) The method of claim 45 wherein the peroxide added to the plastic material wastes is in ground form.
- 61. (Previously Presented) The method of claim 29 wherein the peroxide is provided by peroxide-bearing waste.
- 62. (Previously Presented) The method of claim 45 wherein the peroxide is provided by peroxide-bearing waste.
  - 63. (New) The method of claim 29 wherein the peroxide is dicumyl peroxide.
  - 64. (New) The method of claim 45 wherein the peroxide is dicumyl peroxide.
- 65. (New) The method of claim 29 wherein the step of crosslinking including heating a mixture of the pre-sorted plastic waste materials and the peroxide.
- 66. (New) The method of claim 45 wherein the step of crosslinking including heating a mixture of the pre-sorted plastic waste materials and the peroxide.